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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,534	06/23/2003	Joo-Yoen Lee	Q74256	5788
23373 7590 05/01/2008				
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2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
JONES, HEATHER RAE				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
05/01/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/600,534

Applicant(s)

LEE, JOO-YOEN

Examiner

HEATHER R. JONES

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed January 18, 2008 have been fully considered but they are not persuasive.

The Applicant argues on page 8, line 15 – page 9, line 6 that Shen et al. in view of Ozkan et al. fails to disclose decoding prior to converting and the claimed program information converter. The Examiner respectfully disagrees. Shen et al. discloses AD conversion, which is converting the broadcasting, but not in the way the Applicant is converting the signal. However, it does teach the broad limitation of converting program information into a format suitable for the recording/reproducing apparatus. Furthermore, the Examiner admitted in the previous Office Action dated October 19, 2007 that Shen et al. fails to disclose a stream generator operable to receive the converted program information and decoded program data included in the decoded broadcasting program data, and further operable to create a data stream with the converted program information and the decoded program data. In order to teach these limitations Shen et al. is combined with the Ozkan et al. reference. Ozkan et al. discloses in Fig. 12 a flowchart for a method for forming program specific information (the program information converter), which can be performed within a decoder unit for transmission to another device (col. 9, lines 55-64). By converting the program specific information in the decoder unit the signal is being decoded first before performing the conversion (Fig. 13). Furthermore, Shen et al. discloses in Fig. 3

doing the A-to-D conversion in the STB before sending the signal over the IEEE1394 bus to the BDTV and Ozkan et al. is converting the program specific information before transmitting the signal to another device, which makes the Shen et al. reference and the Ozkan et al. reference a reasonable combination because both references are teaching conversions before transmitting the broadcasting data to another device in order to be displayed. Therefore, Shen et al. in view of Ozkan et al. meets the claimed limitations and is a reasonable combination and the rejection is maintained.

The Applicant argues on page 9, line 20 - page 10, line 3 that Ozkan et al. fails to disclose using an IEEE1394 standard. The Examiner respectfully agrees. The IEEE1394 standard was disclosed by Shen et al. in order to send the signal over the IEEE1394 bus (Fig. 3).

The Applicant argues on page 10, lines 7-8 that Ozkan et al. fails to disclose the creation of the SIT and the DIT information. The Examiner respectfully disagrees. Ozkan et al. discloses creating the SIT information in col. 10, lines 49-55. Furthermore, Ozkan et al. discloses creating any other associated that may be formed and incorporated in the program specific information in order to accommodate expanded numbers of channels. Ozkan et al. also discloses the tables being processed for a specific transmission means, which would include creating the DIT information when processing the information for using an IEEE1394 bus as the transmission means.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen et al. (U.S. Patent 6,741,292) and in view of Ozkan et al. (U.S. Patent 7,032,236).

Regarding claim 1, Shen et al. discloses a digital video receiver, which receives and decodes a broadcasting program, creates and transmits a predetermined type of data stream to a recording/reproducing apparatus connected to the digital video receiver through an interface (Fig. 3; col. 5, lines 41-53), the digital video receiver comprising: a program information converter operable to convert the program information included in the broadcasting program into a format suitable for the recording/reproducing apparatus (Fig. 4; col. 5, lines 64-67 – the set top box does the signal processing unless the signal is sent from the digital VCR). However, Shen et al. fails to disclose the broadcasting program comprising program data, representing contents of the broadcast program, and program information; that the program information is decoded prior to the converting; and a stream generator operable to receive the converted program information and decoded program data included in the decoded broadcasting program data, and further operable to create the data stream with the converted program information and the decoded program data.

Referring to the Ozkan et al. reference, Ozkan et al. discloses a system which receives and decodes a broadcasting program comprising program data,

representing contents of the broadcasting program, and program information; creates and transmits a predetermined type of data stream to a recording/reproducing apparatus, the system comprising: a program information converter operable to convert the program information included in the broadcasting program into a format suitable for the recording/reproducing apparatus, wherein the program information is decoded prior to the converting (Fig. 12 –step 250); and a stream generator operable to receive the converted program information and the decoded broadcasting program data, and further operable to create the data stream with the received information and data (Fig. 12 – generates control tables MGT, MDBT, CIT, STT, and TCIT and then formats the tables to create MPEG-2 PSI tables; Fig. 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the receiver disclosed by Shen et al. and the idea of transmitting the program data with more than just video and audio data as disclosed by Ozkan et al. in order to provide the user all the information about the program they are receiving, for example, the description about the show.

Regarding claim 2, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claim 1 as well as the digital video receiver further comprises a program information analyzer operable to analyze the program information included in the data stream (Ozkan et al.: Fig. 12 - step 253 and 255).

Regarding claim **3**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claim 1 including that the program information converter comprises a table generator operable to create at least one new table in the suitable format using at least one of a plurality of tables associated with the program information (Ozkan et al.: Fig. 12 – steps 257, 260, and 263).

Regarding claim **4**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claim 1 including that the program information is Program and System Information Protocol (PSIP) information and the broadcasting program is in Advance Television Systems Committee (ATSC) format, and wherein the PSIP complies with an ATSC standard and the converted program information comprises a selection information table (SIT) and a discontinuity information table (DIT) in accordance with an IEEE1394 standard (Shen et al.: Fig. 3 – IEEE1394 standard; Ozkan et al.: Fig. 12 – steps 257 and 260 – MGT and STT tables are part of the PSIP; col. 10, lines 49-55 - creating any other associated that may be formed and incorporated in the program specific information in order to accommodate expanded numbers of channels. Ozkan et al. also discloses the tables being processed for a specific transmission means, which would include creating the DIT information when processing the information for using an IEEE1394 bus as the transmission means).

Regarding claim **5**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claims 1 and 4 including that at least one of the SIT, the DIT, a program association table (PAT), and a program map table (PMT) is created using information contained in at least one of a Virtual Channel Table (VCT), Master Guide Table (MGT), System Time Table (STT), Event Information Table (EIT) and Extended Text Table (ETT) tables of the PSIP information, and wherein the PAT and PMT complies with an MPEG standard (Ozkan et al.: Fig. 12 – Steps 257, 260, and 263; col. 9, lines 55-64; col. 10, lines 28-38 – tables are formatted for an MPEG standard, the tables listed are only a few of the tables created and all tables are created for that standard, which would include the PAT and PMT tables).

Regarding claim **6**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claim 1 including that the interface is in accordance with an IEEE 1394 standard (Shen et al.: Fig. 3).

Regarding claims **7-12**, these are method claims corresponding to the apparatus claims 1-6. Therefore, claims 7-12 are analyzed and rejected as previously discussed with respect to claims 1-6.

Regarding claim **13**, Shen et al. discloses a digital receiver for receiving data corresponding to a program and transmitting the received data to a recording device in a compatible format (Fig. 3; col. 5, lines 41-53), the digital receiver comprising: an input means for receiving the digital data corresponding to the program; a decoder operable to decode the data; and a program converter

operable to convert the decoded data into the compatible format (Fig. 4; col. 5, lines 64-67 – the set top box does the signal processing unless the signal is sent from the digital VCR). However, Shen et al. fails to disclose the digital data comprising at least audio data, video data, and informational data corresponding to the program; and a program converter operable to convert the decoded informational data into the compatible format.

Referring to the Ozkan et al. reference, Ozkan et al. discloses a system for receiving data corresponding to a program and transmitting the received data to a recording device in a compatible format, the system comprising: an input means for receiving the digital data corresponding to the program, wherein the digital data comprises at least audio data, video data and informational data corresponding to the program; an information decoder operable to decode the informational data; and a program converter operable to convert the decoded informational data into the compatible format (Fig. 12 – generates control tables MGT, MDBT, CIT, STT, and TCIT and then formats the tables to create MPEG-2 PSI tables; Fig. 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the receiver disclosed by Shen et al. and the idea of transmitting the program data with more than just video and audio data as disclosed by Ozkan et al. in order to provide the user all the information about the program they are receiving, for example, the description about the show.

Regarding claim **14**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claim 13 including that the digital receiver further comprises an information analyzer operable to separate the decoded informational data into a plurality of groups, wherein the groups are distinguished by at type of information regarding the program (Ozkan et al.: Fig. 12 – Step 253).

Regarding claim **15**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claims 13 and 14 including that the informational data comprises Program and System Information Protocol (PSIP) data complying with an ATSC standard and the groups comprise at least one of Event Information Table (EIT) data and Extended Text Table (ETT) data, and wherein the converted program information comprises a selection information table (SIT) and a discontinuity information table (DIT) in accordance with an IEEE1394 standard (Shen et al.: Fig. 3 – IEEE1394 standard; Ozkan et al.: Fig. 12 – steps 257 and 260 – MGT and STT tables are part of the PSIP; col. 10, lines 49-55 - creating any other associated that may be formed and incorporated in the program specific information in order to accommodate expanded numbers of channels. Ozkan et al. also discloses the tables being processed for a specific transmission means, which would include creating the DIT information when processing the information for using an IEEE1394 bus as the transmission means). (Ozkan et al.: Fig. 12 – steps 257 and 260 – MGT and

STT tables are part of the PSIP, the other tables according to the PSIP will also be generated).

Regarding claim **16**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claim 13 as well as the digital receiver further comprises a video decoder operable to decode the video data; an audio decoder operable to decode the audio data; and a bit stream generator operable to receive the decoded data, audio and informational data and generate the stream of data in the format compatible with the recording device (Shen et al.: Fig. 4; col. 5, lines 64-67 – the set top box does the signal processing unless the signal is sent from the digital VCR – the video and audio data would be decoded during the signal processing – Fig. 2; Ozkan et al.: Fig. 12 – information data).

Regarding claim **17**, Shen et al. in view of Ozkan et al. discloses all the limitations as previously discussed with respect to claims 13 and 15 including that the format compatible with the recording device is MPEG2 format (Ozkan et al.: Fig. 12 - Steps 257, 260, and 263).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2623

Heather R Jones
Examiner
Art Unit 2621

HRJ
April 24, 2008